THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TERRY F. PLASSE

Appeal No. 94-2477
Application 07/893,554[1]

ON BRIEF

Before STONER, Chief Administrative Patent Judge, and WILLIAM F. SMITH and JOHN D. SMITH, Administrative Patent Judges.

WILLIAM F. SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the final rejection of claims 1, 2, 4 through 6, 8 through 10, and 12, all the claims remaining in the application.

[1] Application for patent filed June 3, 1992. According to appellant, the application is a continuation of Application 07/661,514, filed February 26, 1991, now abandoned.

Claims 1 and 4 are illustrative of the subject matter on appeal and read as follows:

1. A method of treating a patient with symptomatic HIV infection to stimulate appetite of said patient which comprises administering to said patient a 2.5 mg dose of delta-9-tetrahydrocannabinol twice daily.

4. Method according to claim 1 wherein said delta-9-tetrahydrocannabinol is administered in the form of capsules containing said delta-9-tetrahydrocannabinol in sesame oil.

Pending Rejection

Claims 1, 2, 4 through 6, 8 through 10, and 12 stand rejected under 35 U.S.C. § 103. It is unclear from our review of the record precisely what documents the examiner is relying upon as evidence of obviousness. In rejecting the claims in the first Office Action in the parent application (Paper No. 2, mailed June 3, 1991), the examiner cited two articles from technical journals on the PTO-892, identifying these articles as Vaupel et al.[2] and Noyes et al.[3] However, the record at the time of our initial review did not contain a copy of either article. Rather, apparently the examiner relied upon and supplied to appellant a printout obtained from a computer database containing a copy of the abstract of Vaupel which appeared in Chemical Abstracts and a copy of the abstract of Noyes which appeared on the Biosis database.

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[2] Vaupel, D.B., et al, Pharmacol Biochem Behav 17(3):539-545 (1982).

[3] Noyes et al, Comp Psychiatry 17(5):641-646 (1976).

To further confuse the matter, the examiner cites the following two references at page 2 of the Examiner's Answer:

> Chemical Abstracts 97(23):193048f, 1982 (Vaupel, D.B. et al.)
> Biosis Abstract AN 78:167016, BA65:54016, 1976 (Noyes, R. Jr. et al.)

However, copies of these two abstracts as originally published are not of record. Rather, it appears that the examiner is still relying upon the printout containing these two abstracts as obtained from the computer database.

We first point out that the printout of record contains a copyright date of 1991. Thus, it is not apparent that the printout is prior art to the claims on appeal. Rather, at best, the examiner's reliance upon the printout can be interpreted to be similar to the Patent and Trademark Office's (PTO) reliance upon information described in a database printout as discussed in In re Epstein, 32 F.3d 1559, 31 USPQ2d 1817 (Fed. Cir. 1994). As determined in Epstein, the PTO can rely upon information contained in a printout of a database which is not itself prior art under appropriate circumstances. We need not determine whether those circumstances are present in this case since we have obtained the full text Vaupel and Noyes articles. It is not apparent why appellant and the examiner have spent their resources determining the patentability of the subject matter on appeal based upon abstracts of technical articles when the full text articles are readily obtained. While the ultimate question of obviousness under 35 U.S.C. § 103 is one of law, that question can only be answered after certain factual findings have

been made. Graham v. John Deere Co., 383 US 1, 17, 148 USPQ 459, 467 (1966). Thus, it would behoove any person making a patentability determination under 35 U.S.C. § 103 to seek out and consider the most complete factual basis prior to reaching the legal question. Clearly, obtaining and considering full text documents, instead of relying upon abstracts thereof whether obtained from their original source or from a computer database, when the full text documents are readily available, provides a more complete factual basis.

An example of why reliance should be placed upon full text articles instead of abstracts whenever possible is seen from the examiner's consideration of the Vaupel abstract. The examiner made the following finding at page 3 of the Examiner's Answer, "Vaupel et al teach that delta-9-THC stimulates food consumption in normal subjects." However, the Vaupel abstract indicates that delta-9-THC was administered to "food deprived dogs." The record does not indicate on what basis the examiner determined that food deprived dogs are "normal subjects." Consideration of the full text Vaupel article confirms that that study involved dogs, not humans. However, Vaupel indicates in the bridging paragraph of page 543 that the dog can be used "as species for evaluating cannabinoid derivatives that may enhance appetite while lacking the capability to produce sedation." The full text article of Vaupel then indicates that the results of the study indicate that delta-9-THC may be useful in treating human conditions.

Rather than spend the resources of the Board to determine whether the examiner's rejection under 35 U.S.C. § 103 is properly supported by the two abstracts, we have considered the full text articles. As a result, we find that the Vaupel article is significantly less relevant prior art in determing the patentability of the claimed subject matter, than Noyes and other prior art contained in this record. Furthermore, the statement of the rejection appearing at page 3-4 of the Examiner's Answer is not a model of clarity. The examiner first states that the two abstracts are used in combination, yet the subsequent explanation of the rejection does not explain how the examiner proposes to combine the two disclosures. In view of the confusion surrounding exactly what information the examiner is relying upon in making the rejection, the confusing nature of the statement of the rejection, as well as our discovery of more relevant prior art in this record, we reverse the examiner's rejection and institute the following new grounds of rejection under 37 CFR § 1.196(b).

New Grounds of Rejection

Under the provisions of 37 CFR § 1.196(b), we make the following new grounds of rejection.

Claims 1, 2, 4 through 6, 8 through 10 and 12 are rejected under 35 U.S.C.

§ 103. As evidence of obviousness, we rely upon the full text article to Noyes[4], Regelson[5] and the following admission set forth at page 1 of the present specification:

> Among the many problems endured by patients suffering from symptomatic HIV infection, which includes inter alia AIDS (Acquired Immune Deficiency Syndrome) and ARC (AIDS Related Complex), are loss of appetite with consequent loss of weight. This loss of appetite and loss of weight further debilitates the patients and increases the many problems associated with the HIV infection.

The claims on appeal are directed to a method of treating a patient with symptomatic HIV infection, e.g., AIDS or ARC, by administering a 2.5 mg dose of delta-9-tetrahydrocannabinol (delta-9-THC) twice daily. Delta-9-THC is the active ingredient in marijuana. See page 1, second full paragraph of the specification. Noyes reports the results obtained from a study which examine the effects of delta-9-THC on advanced cancer patients. The patients were administered either a placebo, 10 mg/day or 20 mg/day of delta-9-THC. The side effects resulting from the three treatments were monitored and reported in Table 3 of the reference as follows:

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[4] A copy of this full text article as well as a copy of the full text Vaupel article are attached.

[5] Regelson et al., (Regelson), "Delta-9-tetrahydrocannibol as an effective antidepressant and appetite-stimulating agent in advanced cancer patients," The Pharmacology of Marihuana, eds. M.C. Braude and S. Szera (New York: Raven Press, 1976), 763-776 (copy of record).

Table 3. Numbers of Patients Reporting Side Effects Following Single Oral Doses of THC and Placebo (N = 44).

	THC 20 mg	THC 10 mg	Placebo
Gastrointestinal			
increased appetite	11	15	5
nausea	9	10	7
vomiting	5	2	2
diarrhea	5	1	2
Central Nervous System			
drowsiness	36	30	15
mental clouding	25	15	3
ataxia	20	14	8
slurred speech	20	10	6
numbness	17	6	4
disconnected thought	16	12	3
disorientation	14	6	3
muscle twitching	11	9	3
tremor	4	3	1
Miscellaneous			
dizziness	39	24	10
dry mouth	36	33	20
blurred vision	29	18	3
conjunctival injection	8	5	2
tinnitus	7	8	4
sweating	6	8	4

Noyes describes Table 3 at page 644 as follows:

> The numbers of patients reporting various side effects are shown in Table 3. In addition to sedation, dizziness, blurred vision, ataxia, and slurred speech appeared to be dose-limiting effects. Negrete has defined severe marijuana intoxication as a mild delirium consisting of impaired sensorium, disorientation, slurred speech, and ataxia. According to this author's classification, approximately a third of patients became severely intoxicated following 20 mg of THC. Three patients were similarly effected by the 10 mg dose. Increased appetite, which was frequently reported after 10 mg of THC, was less commonly described following 20 mg. This effect may have been obscured by other manifestations of the larger dose. [Footnote omitted.]

As can be seen from Table 3 of Noyes, as the dose of delta-9-THC was lowered from 20 mg/day to 10 mg/day, the number of patients reporting increased appetite increased, the number of patients reporting nausea increased slightly while the number of patients reporting vomiting and diarrhea decreased. It is also seen from Table 3 that all of the side effects classified under "Central Nervous System" decreased with the decreased dosage of delta-9-THC.

As set forth above, appellant acknowledges that at the time of the present invention, it was known that patients suffering from symptomatic HIV infection were subject to loss of appetite with consequent loss of weight.

From this factual background, we conclude that one of ordinary skill in the art would have found it prima facie obvious to treat patients having symptomatic HIV infection by orally administering delta-9-THC. One of ordinary skill in the art would have reasonably expected that administering this compound to patients suffering from symptomatic HIV infection would result in increased appetite as was observed by Noyes when this compound was administered to patients suffering from advanced cancer.

In reaching this conclusion, we recognize that the lowest amount administered by Noyes was 10 mg/day while the claims on appeal require 5.0 mg/day. However, it has been held that "discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art." In re Boesch, 671 F.2d 272, 276,

205 USPQ 215, 219 (CCPA 1980)(citations omitted). Furthermore, Noyes clearly suggests that administration of delta-9-THC for the purpose of stimulating appetite while minimizing central nervous system effects is best obtained using a low dosage. Thus, one of ordinary skill in the art would have had ample reason, suggestion, or motivation from the applied prior art to use a lesser amount of delta-9-THC for the purpose of increasing or stimulating appetite.

Further factual support for the conclusion of prima facie obviousness is found in Regelson. Regelson describes the results obtained from a clinical study in which delta-9-THC was administered in the form of 2.5 mg capsules of a suspension of the agent in sesame oil, as in claims 4, 8 and 12 on appeal, to advanced cancer patients. The daily dosage used in that study was as low as 5 mg/day as in the present invention. See Table 1. Significantly, Regelson found that all groups involved gained weight during the study. See, e.g., first full paragraph of page 769. Thus, at the time of the present invention, one of ordinary skill in the art knew that delta-9-THC, in the form of 2.5 mg capsules containing a suspension of the active agent in sesame oil, administered in amounts as low as 5 mg/day resulted in advanced cancer patients gaining weight. Thus, this hypothetical person would have had a reasonable expectation that administering the same agent to patients having symptomatic HIV infection would result in weight gain.

In responding to the examiner's rejection, appellant argued at page 3 of the Appeal Brief that

> [a] surprising aspect of the present invention, then, is that at a level at which adverse CNS effects are substantially eliminated, appetite stimulation, in fact, is maximized. Certainly nothing in the art leads to that conclusion.

However, as set forth above, Table 3 of Noyes provides a factual basis upon which a conclusion can reasonably be reached that lowering the amount of delta-9-THC will, in fact, maximize the effect of stimulating appetite while minimizing the central nervous system effects of this compound.

Appellant also argues at page 3 of the Appeal Brief that it was unexpected that reducing the dose of delta-9-THC to the claimed level would so effectively stimulate appetite that some patients gained weight. Appellant relies upon his declaration filed under 37 CFR § 1.132 filed on June 3, 1992, in support of this argument. In his declaration, appellant discusses the results obtained from a pilot study of administering delta-9-THC for appetite stimulation in AIDS patients. The clinical summary of that study is attached to the declaration. As seen from page 18 of the clinical summary, the study did not establish a correlation between appetite change and weight change, i.e., stimulating a patient's appetite did not necessarily result in the patient gaining weight. While the group having the biggest improvement in appetite and the largest weight gain was the group which received the claimed dosage of delta-9-THC, appellant

acknowledges that stimulating appetite does not necessarily result in a weight gain. Thus, as was the case in In re Muchmore, 433 F.2d 824, 825-26, 167 USPQ 681, 683 (CCPA 1970), the claims on appeal can be seen as including processes which yield the argued unexpected result as well as processes which do not. As set forth in Muchmore, claims which read on both obvious and unobvious subject matter, are obvious under 35 U.S.C. § 103.

Furthermore, as set forth above, Regelson provides evidence that one of ordinary skill in the art would have reasonably expected some patients to experience a weight gain through use of the claimed treatment. Thus, to the extent appellant's study identified some HIV patients who gained weight as a result of the claimed treatment, it is not clear from this record that that observation can be viewed as surprising or unexpected.

Taking a step back and weighing the evidence of obviousness and the evidence of nonobviousness, we conclude that the evidence of obviousness outweighs the evidence of nonobviousness. Accordingly, we hold that the subject matter of claims 1, 2, 4 through 6, 8 through 10 and 12, in its entirety, would have been obvious to one of ordinary skill in the art.

Other Issues

The clinical summary attached to the declaration of record under 37 CFR

§ 1.132 states at page 7, "dronabinol [delta-9-THC] has been reported in a number of clinical investigations to increase appetite in both normal subjects and cancer patients. [citations omitted] Anecdotally, the drug has been noted to enhance appetite and cause weight gain in HIV patients as well. [citation omitted] These effects have occurred at doses which generally do not cause side effects." The citation set forth in support of the anecdotal evidence regarding dronabinol being associated with enhancement of appetite and causing weight gain in HIV patients is to a work stated to be "in press" and lists appellant as a coauthor.

If prosecution is resumed on this subject matter before the examiner in this application or in a continuing application, appellant should make of record the so-called anecdotal evidence that dronabinol was noted to enhance appetite and cause weight gain in HIV patients. If this information is prior art to the claims on appeal, the examiner should take appropriate action.

Time Period For Response

Any request for reconsideration or modification of this decision by the Board of Patent Appeals and Interferences based upon the same record must be filed within one month from the date of the decision. 37 CFR § 1.197. Should appellant elect to have further prosecution before the examiner in response to the new rejection under 37 CFR § 1.196(b) by way of amendment or showing of facts, or both, not previously of record,

a shortened statutory period for making such response is hereby set to expire two months from the date of this decision.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

REVERSED - 37 CFR § 1.196(b)

Bruce H. Stoner, Jr., Chief Administrative Patent Judge	)
William F. Smith Administrative Patent Judge	) BOARD OF PATENT)) APPEALS AND)) INTERFERENCES
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